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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,846	01/08/2002	Moti Haimovsky	37360	4483

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THE LAW OFFICE OF KIRK D. WILLIAMS
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EXAMINER

CHEN, TSE W

ART UNIT PAPER NUMBER

2116

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,846

Applicant(s)

HAIMOVSKY ET AL.

Examiner

Tse Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8, 13, 31-33 and 35-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 13, 31-33 and 35-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated September 26, 2005.
2. Claims 8, 13, 31-33 and 35-51 are presented for examination.

Drawings

3. The drawings are objected to because the labeling of figure 3 does not correspond to the specification. Specifically, remote system controller 302 should be "303" and remote storage mechanism 302 should be "304". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 37 and 40, 45-46 are objected to because of the following informalities:

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- As per claims 37 and 46, “said the first programmable interface” should be “said first programmable interface”.
- As per claim 40, “salve” should be “slave”.
- As per claim 45, “a master system including” should be “a master system”.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8, 31-32, 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haigh et al., US Publication 20020087854, hereinafter Haigh, in view of Haisraeli, US Publication 20040015846, Rahman et al., US Patent 5539890, hereinafter Rahman, Jeffries, US Patent 5636342, and Getting Started Microsoft Windows 98, hereinafter Microsoft.

7. Haigh discloses an apparatus [fig.1-3] comprising:

- A master system [sbc 302] including a master memory [e.g., 224] and a storage mechanism [disk 301] for storing a first remote boot image and a second remote boot image [pt.0022—23, 0033-34; disk portions store associated sbc images].
- A first slave system [sbc 303] including a first memory [e.g., 212] and a first programmable interface [bmi 230/320 and associated circuitries/units] coupled to the master system, the first programmable interface including a first system controller [218] [pt.0025, 0034].

- A second slave system [sbc 304] including a second memory [e.g., 212] and a second programmable interface [bmi 320 and associated circuitries/units] coupled to the master system, the second programmable interface including a second system controller [218] [pt.0025, 0034].
- Wherein the master system is configured to perform one or more operations to identify the first slave system and the second slave system after the master system is booted and the first and second slave system controllers are released [218 are released to freely process commands]; wherein the master system is configured to determine that the first remote boot image should be used for the first slave system and to cause the first slave system to retrieve the first remote boot image and to boot from said retrieved first remote boot image; and wherein the master system is configured to determine that the second remote boot image should be used for the second slave system and to cause the second slave system to retrieve the second remote boot image and to boot from said retrieved second remote boot image [0015, 0026, 0029-30, 0033-36; 222 uses the parameters to identify the slaves and partition the disk accordingly to store associated sbc images; OS loader from master system causes slaves to access the appropriate OS].

8. Haigh did not disclose explicitly releasing the system controllers by the master system and did not discuss the details of retrieving the different remote boot images and identifying the slaves.

9. Haisraeli discloses an apparatus [fig.15] wherein first and second system controllers [slaves 302] are released [release_sync command] by the master system [300] [pt.0307; table 7].

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10. It would have been obvious to one of ordinary skill in the art, having the teachings of Haisraeli and Haigh before him at the time the invention was made, to modify the apparatus taught by Haigh to include the teachings of Hairaeli, as the releasing of slave systems by a master system is very well known in the art. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to test hierarchical systems such as Haigh's [Hairaeli: pt.0002, 0283; table 7; testing requires synchronized release between master and slave].

11. Rahman discloses an apparatus [processor system 10] comprising:

- A master system [microprocessor 12(0), maintenance diagnostic chip 14, and other associated circuitries/units such as memory 22] including a storage mechanism [memory 22, memory interface chip 20, and other associated circuitries/units] for storing a remote boot image [fig.1; col.10, ll.17-41].
- Wherein the master system is configured to update a programmable interface to retrieve the remote boot image [col.9, l.36 – col.10, l.41; mdc 14 updates register 220 in pic 16 to indicate where to retrieve boot image].

12. It would have been obvious to one of ordinary skill in the art, having the teachings of Rahman and Haigh before him at the time the invention was made, to modify the apparatus taught by Haigh to include the system controller taught by Rahman, in order to obtain the apparatus comprising the master system configured to update the first/second programmable interface to cause the first/second slave system to retrieve the first/second remote boot image [parameter of Haigh's 214 can be updated appropriately as is well known in the art]. One of

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ordinary skill in the art would have been motivated to make such a combination as it provides a way to reduce overhead and maintenance in a network system [Haigh: pt.0003-0016].

13. Jeffries discloses a master system [smb master] configured to perform one of more operations [get identity] to identify one or more characteristics [nature, revision] of a slave system [smb slave] after the master system is booted [boot in order to operate], said operations including interrogating the slave system to identify its respective said characteristics [col.7, ll.39-61; col.8, ll.34-47].

14. It would have been obvious to one of ordinary skill in the art, having the teachings of Jeffries and Haigh before him at the time the invention was made, to modify the master system taught by Haigh to include the teachings of Jeffries, in order to automatically assign addresses to slaves in a system [Jeffries: col.2, ll.5-22]. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to automatically assign addresses to slaves in a system without requiring the user to manually or programmatically set physical or logical switches.

15. Microsoft discloses determining a boot image [Windows 98] based on one or more characteristics [486dx] [pg.23, Before You Begin].

16. It would have been obvious to one of ordinary skill in the art, having the teachings of Microsoft, Jeffries and Haigh before him at the time the invention was made, to modify the master system taught by Haigh and Jeffries to include the teachings of Microsoft, in order to obtain the apparatus comprising the master system configured to determine that the first/second remote image should be used for the first/second slave system in response to the interrogation of the first/second slave system based on the identified characteristics of the first/second slave

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system. One of ordinary skill in the art would have been motivated to make such a combination as it provides a very well known way to conform with minimum system requirements and ensure that a system can operate effectively [Microsoft: pg.23, Before You Begin].

17. As to claim 31, Jeffries discloses, wherein said one or more characteristics include its type [nature] [col.8, ll.34-47].

18. As to claims 32 and 35, Jeffries discloses, wherein said one or more characteristics include its version [revision] [col.8, ll.34-47].

19. As to claim 36, Haigh discloses, wherein the master system is coupled to the first and second slave systems via a single bus [320] [0034].

20. As to claim 37, Haigh discloses, wherein said first programmable interface is configured to modify an original boot address to a remote boot address for accessing the first remote boot image [0025]. Examiner hereby takes Official Notice that it is well known in the art to translate [in lieu of modify] a boot address to another boot address in order to access an alternate boot address.

21. As to claim 38, Haigh discloses, wherein the first slave system includes a boot disk [conventionally], and wherein the original boot address [parameter] refers to a location in the boot disk for retrieving a locally stored boot image within the first slave system [0025].

Examiner hereby takes Official Notice that it is well known in the art to store boot images in a ROM disk in order to prevent unintended modifications.

22. Claims 13, 33, 39-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haigh, in view of Rahman, Jeffries, and Microsoft as applied to claim 8 above.

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23. In re claims 13, 39, 45, Haigh, Rahman, Jeffries, and Microsoft disclose the apparatus [sans limitation of release by the master system]; therefore, Haigh, Rahman, Jeffries, and Microsoft disclose the method and means thereof for operating the apparatus.

24. As to claims 33, 42-44, 49-51, Jeffries discloses, wherein said one or more characteristics include its type [nature] or version [revision] [col.8, ll.34-47].

25. As to claims 40, 46 and 48, Haigh, Rahman, Jeffries, and Microsoft disclose the method and means of programming thereof as discussed above in reference to claims 13, 45 and 37.

26. As to claims 41 and 47, Haigh, Rahman, Jeffries, and Microsoft disclose the method and means thereof as discussed above in reference to claim 13, 45 and 38.

Response to Arguments

27. Applicant's arguments filed September 26, 2005 have been fully considered but they are not persuasive.

28. Applicant alleges that Microsoft "teaches a human user the minimum system requirements... there is no teaching that this operation can be performed in an automated manner..." Examiner submits that merely using a computer to automate a known process does not by itself impart nonobviousness to the invention. See *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). See also *Dann v. Johnston*, 425 U.S. 219, 227-30, 189 USPQ 257, 261 (1976).

29. Applicant alleges that Jeffries cannot be combined with Microsoft because Jeffries does not teach "identification of the characteristics of the processor..." Examiner submits that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly

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suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In the instant case, one of ordinary skill in the art, having the teachings of Microsoft and Jeffries before him at the time the invention was made, would have recognized the appropriate characteristics necessary to be interrogated in order to perform the required selection for a system.

30. Applicant alleges that "motivation to combine references is for automatic assignment of addresses... which is a function not recited in the claims". Examiner submits that the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability.

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited U.S. patent documents describe various methods and systems associated with address translations as well as various well-known elements in the art.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen
December 13, 2005


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